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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/554,916	10/31/2005	Emil Zellweger	Q90959	9776
23373 7590 01/24/2008 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER KARACSONY, ROBERT	
			ART UNIT 2821	PAPER NUMBER
			MAIL DATE 01/24/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/554,916

Applicant(s)

ZELLWEGER ET AL.

Examiner

Robert Karacsony

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 9, 2007 has been entered.

Claim Objections

2. Claim 12 is objected to because of the following informalities:
3. Claim 12: On line 6 of the claim, applicant recites the limitation "the top face", which lacks antecedent basis. For Examination purposes, examiner interprets this limitation as "a top face". Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:
- The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 14-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Claims 14 and 16 recite the limitation "it" in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claims. For examination purposes, examiner interprets the limitation as "said wristwatch".

7. Claims 15 and 17 are rejected for depending on claims 14 and 16.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 12 and 14-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Koyama* (US 6,531,988, hereinafter *Koyama*) in view of *Stewart et al.* (US 6,266,019, hereinafter *Stewart*).

Claim 12: *Koyama* teaches a wristwatch (100) including a case (4) at least one part of which is electrically conductive (7, col. 3/line 22) and in which are housed an electronic module (8) including a printed circuit board (2) and an electric power source (6) for powering said electronic module (col. 6/lines 22-23), said wristwatch further including an antenna (1) provided with a ground plane (15),

wherein the antenna and the ground plane are arranged on a top face of said printed circuit board (fig. 1), said top face being arranged on the side of a display device (10) of the wristwatch, wherein said printed circuit board includes a top surface (surface that antenna is located on) and a bottom surface (opposite surface from the top surface).

Koyama fails to teach said printed circuit board having, at its periphery, a mechanical contact zone bearing on said electrically conductive part of the case; and a conductive track electrically connected to said ground plane, said conductive track extending at the periphery of

said printed circuit board and at least over said bottom surface of said printed circuit board, over said mechanical contact zone, in such a way as to establish an electric contact between said conductive track and said electrically conductive part of the case, so as to enlarge the ground plane of said antenna in directions extending substantially in the extension of said ground plane, the enlargement being located substantially in the plane containing the ground plane of the antenna, and wherein said electrically conductive part has a portion thereof extending at least substantially to the level of the bottom surface of the printed circuit board. *Koyama* does however teach grounding the back of the case to the ground of the circuit board (col. 3/lines 22-27). *Stewart* teaches methods of grounding the circuit board to a housing structure, comprising, a conductive trace (145, fig. 1) at ground potential extending along the perimeter of the bottom surface of the circuit board (col. 3/lines 47-53) that comes in contact with a conductive elastomer located on the rear housing (col. 3/lines 59-67). The claim would have been obvious because the substitution of one known element for another would have yielded predictable results to one of ordinary skill in the art at the time of the invention. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have grounded the case of *Koyama* using the method taught by *Stewart* since the substitution of one known element for another would have yielded predictable results.

Koyama also fails to teach said electrically conductive part has a portion thereof extending at least substantially to the level of the bottom surface of the printed circuit board. However, it would have been an obvious design choice to have raised the side walls of the bottom case of *Koyama*, since applicant has not disclosed that "said electrically conductive part has a portion thereof extending at least substantially to the level of the bottom surface of the

printed circuit board” solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with said electrically conductive part has a portion thereof extending at least substantially to the level of the bottom surface of the printed circuit board.

Claims 14 and 15 is similar in scope as claim 12 and is therefore rejected for substantially the same reasons. Also, examiner notes that the shoulder of the claimed invention is interpreted to be the raised portion of casing.

Claim 16: *Koyama* teaches it further includes a support element (screws) exerting a pressure at several points of the periphery of said printed circuit board where said electrically conductive strip is compressed. (col. 6/lines 28-29, the screws used to secure the front and back casing of *Koyama* will exert a pressure at several points of the periphery of said printed circuit board where said electrically conductive strip is compressed)

Claim 17: Claim 17 is rejected for substantially the same reasons as claim 14, as discussed above.

Claim 18: *Koyama* teaches said conductive track is arranged on a first face of the printed circuit board (top surface of PCB) and is electrically connected to other conductive tracks (17) of the electronic module via metallised holes (18).

Claim 19: *Koyama* teaches said electrically conductive part of the case is electrically connected to a pole of determined electric potential of the electric power source (col. 10/lines 41-46), said electrically conductive part of the case being used to bring said determined electric potential to said electronic module via said conductive track (7, 8 and 18 are all in direct electric contact).

Claim 20: *Koyama* teaches said electrically conductive part of the case is brought to a determined electric potential (determined electric potential is the electric potential of the ground pattern) via said conductive track (the electrically conductive part of the case will be brought to the electric potential of the ground pattern via the conductive track).

Claim 20 is similar in scope as claim 12 and is therefore rejected for substantially the same reasons.

Claim 21: If the modifications to the invention of *Koyama* were made, as discussed above, one with ordinary skill in the art would have realized said conductive track extends over substantially the entire periphery of the printed circuit board (col. 3/lines 47-49).

Claim 22: If the modifications to the invention of *Koyama* were made, as discussed above, one with ordinary skill in the art would have realized said conductive track extends over at least a part of the periphery of the printed circuit board located in the proximity to said ground plane (col. 3/lines 47-49).

10. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Koyama* in view of *Stewart* as applied to claim 12 above, and further in view of *Bokhari et al.* (US 5,646,634, hereinafter *Bokhari*).

Claim 13: *Koyama* in view of *Stewart* teach all of the limitations of claim 12, as discussed above. They fail to teach said antenna is a micro-strip antenna including a radiating element arranged substantially parallel to said ground plane. However, *Bokhari* teach a microstrip antenna suitable for use in watches (col. 1/lines 45-47) that are able to emit and/or to receive GPS (Global Positioning System) signals (col. 1/lines 8-19), which is compact, and

relatively simple and inexpensive to manufacture (col. 1/lines 39-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the microstrip antenna of *Bokhari* as the antenna element of *Koyama* in order to have utilized its small size and relatively simple and inexpensive manufacturing cost benefits.

Response to Arguments

11. Applicant's arguments with respect to claims 12-22 have been considered but are moot in view of the new ground(s) of rejection:

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Karacsony whose telephone number is 571-270-1268.

The examiner can normally be reached on M-F 7:30 am - 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W. Owens can be reached on 571-272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
10/554,916
Art Unit: 2821

Page 8

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RK *rk*

/Hoang V Nguyen/
Primary Examiner, AU 2821